

## CLAIMS:

1. A proxy agent for communicating data components between a first system which supports a first protocol  
5 and a second system which supports a second protocol, said first and second protocols being mutually incompatible, the proxy agent comprising a directory for storing said data components wherein each data component stored in said directory is associated with a  
10 first data component identifier which is compatible with said first protocol, and with a second data component identifier which is compatible with said second protocol.
- 15 2. A proxy agent as claimed in Claim 1, further including a first protocol handler arranged to communicate with said first system using said first protocol, and a second protocol handler arranged to communicate with said second system using said second protocol,  
20 wherein said first protocol handler is arranged to send data components to, and/or receive data components from, said directory using said first data component identifier, and said second protocol handler is arranged to send data components to, and/or receive data components from, said directory using said second data component identifier.
- 25 3. A proxy agent as claimed in Claim 1, in which the directory supports a hierarchical data structure in which each stored data component is associated with a respective position in the hierarchical data structure.

4. A proxy agent as claimed in Claim 3, wherein said respective first data component identifiers support a hierarchical structure and serve to identify the respective position of the respective data component in  
5 the hierarchical data structure.
5. A proxy agent as claimed in Claim 4, wherein said data components are arranged into directory entities within the directory, each directory entity comprising  
10 a one or more directory entries, each directory entry comprising a respective data component, a respective first data component identifier and a respective second data component identifier.
- 15 6. A proxy agent as claimed in Claim 5, wherein each data component within a directory entity belongs to the same branch of the hierarchical data structure.
7. A proxy agent as claimed in Claim 5, wherein each  
20 directory entity is associated with a first directory entity identifier which is compatible with said first protocol and with a second identifier which is compatible with said second protocol.
- 25 8. A proxy agent as claimed in Claim 7, in which said respective first directory entity identifiers support a hierarchical structure.
9. A proxy agent as claimed in Claim 7, in which each  
30 of said first directory entity identifiers belongs to a branch of the hierarchical data structure that is one hierarchical level above the branch to which the

respective data components in the respective directory entity belong.

10. A proxy agent as claimed in Claim 5, in which a  
5 respective schema is provided to define each type of  
directory entity and wherein a respective directory  
entry is created by populating a respective schema with  
one or more data components.

10 11. A proxy agent as claimed in Claim 1, wherein said  
first protocol supports a hierarchical data structure.

12. A proxy agent as claimed in Claim 1, wherein said  
first and second protocol each comprise a respective  
15 network management protocol.

13. A proxy agent as claimed in Claim 1, wherein said  
first protocol comprises Simple Network Management  
Protocol (SNMP).

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14. A proxy agent as claimed in Claim 1, wherein said  
first system comprises a Network Management system  
(NMS) and said second system comprises a network  
element.

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15. A proxy agent as claimed in Claim 14, wherein said  
proxy agent effects communication between said Network  
Management system and a plurality of network elements,  
at least some of said network elements supporting said  
30 second protocol.

16. A proxy agent as claimed in Claim 1, wherein said directory comprises a directory which supports Lightweight Directory Access Protocol (LDAP).

5 17. A network comprising a first system which supports a first protocol and a second system which supports a second protocol, said first and second protocols being mutually incompatible, and a proxy agent as claimed in Claim 1.

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18. A method of communicating data components between said first system which supports a first protocol and a second system which supports a second protocol, said first and second protocols being mutually incompatible,

15 said method comprising storing said data components in a directory wherein each data component stored in said directory is associated with a first data component identifier which is compatible with said first protocol, and with a second data component identifier

20 which is compatible with said second protocol.

19. A computer program product comprising computer program code for causing a computer to perform the method of claim 18.

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